and 34. Claims 25-29, 33 and 35 were withdrawn from consideration by the Examiner as being drawn to a non-elected invention. By this Amendment, Applicant has cancelled Claims 25-29, 33 and 35, without prejudice for filing a divisional application should Applicant wish to do so. Accordingly, Applicant affirms his election by this Amendment.

In the Office Action, Claims 21-24 were objected to due to several informalities. Applicant has amended Claim 21 to overcome the informality objection. Reconsideration of the objections to these claims is respectfully solicited.

In the Office Action, each of Claims 1-5, 8, 16, 18, 19, 30-32 and 34 were rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,003,596 to Wood in view of U.S. Patent No. 5,841,872 to Colvin, Sr. The Examiner contends that the Wood reference teaches a block encryption method to convert a block of input plaintext into a unique block of ciphertext (see Col. 3, lines 38-40 and Fig. 1). During the telephone interview with the Examiner, Applicant's attorney noted that the referenced sentence applies to all encryption ciphers. Specifically, all encryption ciphers must transform every unique block of data uniquely, otherwise there would be no way of decrypting the ciphertext. The Examiner noted that a further discussion of what was meant by that sentence in Wood can be inferred from the Summary of the Invention. In the Summary of the Invention, the Wood reference discloses the use of a key table in a multiple round encryption process. The Wood reference further states that every possible plaintext combination would be encrypted with a different key combination. The keys chosen from the table for a key addition operation are a function of the plaintext, the current state of the cypher text, and the mask values. The Wood reference discloses an encryption key which is selected based on the plaintext static key table and static

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mask values that are derived from the static enclave functions which are derived from the secret key. Accordingly, it is Applicant's understanding that the Wood reference teaches a static key schedule.

The system of Wood operates by selecting varying encryption functions, including permutations and substitutions, by the plaintext, current state of the ciphertext and the mask values. The Wood reference further states that in this way, every block would be encrypted with a different combination of permutations and substitutions. Such an encryption method is vastly different from the method of the present invention.

The present invention uses a "dynamic" object key to create the blocks cipher's "dynamic" key schedule. The term "dynamic" as used by the Applicant in the specification, identifies that the object key and the key schedule are being modified, i.e., changing, with each input block of plaintext data. Accordingly, the present invention describes a novel encryption technique in which at least one object key is created, a key schedule is created based upon the at least one object key, a block of input plaintext data is encrypted using the key schedule, the object key is then modified, the modified object key is used to create a modified key schedule, and this modified key schedule is used to encrypt the next block of input plaintext data. This method is continued until all plaintext data has been encrypted. Accordingly, each block of data is encrypted using a different object key and hence a different key schedule. This type of encryption method creates a one-to-many mapping of plaintext and ciphertext. Furthermore, the encryption method is not dependent upon either the input plaintext or the ciphertext as disclosed in the Wood reference. The dependent claims further define specific aspects of the encryption method including the method by which the at least

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one object key and key schedule are modified based on a dynamic random session key. Accordingly, the Wood reference fails to teach or suggest the claimed encryption method discussed above. In the Office Action, the Examiner notes that the Colvin reference is merely cited to show that object-oriented programming is known in encryption methods. Thus, the Colvin reference also fails to teach or suggest the claimed encryption method.

As earlier noted, independent Claim 30 was also rejected in view of the Wood and Colvin references. Applicant respectfully traverses the Examiner's rejection of Claim 30. Claim 30 specifically defines that the encryption/decryption process uses a dynamic object key which changes with each block of input data and that each object key is associated with a different key schedule to encrypt/decrypt the input plaintext/output ciphertext message. Accordingly, it is the "dynamic", i.e., changing object key with each block of input data and the corresponding "dynamic" key schedule based upon the dynamic object key which is the essence of the invention and, as earlier noted, none of the cited references teach or suggest such a method. Accordingly, reconsideration of the rejection to Claim 30 and any claims that depend therefrom is respectfully solicited.

In the Office Action, the Examiner has noted allowable subject matter in Claims 9 and 21-24. Accordingly, by this Amendment, Applicant has added new Claims 36-40 wherein new Claim 36 includes the allowable subject matter of Claim 9 and claims from which it depended and new Claim 37 includes the allowable subject matter of Claim 21 and claims from which it depended. Claims 38-40 depend from new Claim 37. Accordingly, each of new claims 36-40 should be in condition for allowance.

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In view of the earlier telephone interview, the amendments and remarks set forth herein, Applicant respectfully submits that each of Claims 1-24, 30-32, and 34-40 are in condition for allowance. If the Examiner believes that a telephone discussion would expedite allowance of this application, he is respectfully requested to contact Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

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